

WHAT IS CLAIMED IS:

1. A connection system for connecting the four conductors of a quad cable to terminals, the system including a quad terminator having four quad contacts connected to the quad cable conductors, an insert that has an insulative insert frame with multiple rows and columns of through passage that extend  
5 between opposite front and rear insert ends wherein the insert also has multiple double-ended insert contacts that each lies in one of said passages, wherein front ends of a plurality of said insert contacts are each connected to one of said terminals, and the system including a mounting shell that has a bay that receives the insert, the mounting shell having a rear bay end where said insert rear end is  
10 exposed wherein:

said quad terminator has an insulator, said quad contacts have front ends projecting forward of said insulator, and said quad terminator is free of a main shield portion surrounding all four of said quad contact front ends so each contact front end can fit into the rear end of one of said insert frame passages and mate with one  
15 of said insert contacts; and including:

a backshell adaptor that is fastenable to said mounting shell to lie at a rear end of said bay so a front of said backshell adaptor substantially abuts the insert rear end of the insert lying in the bay, said backshell adaptor having a bore that receives and removably retains said quad terminator, with the four quad contact front ends projecting from the front end of the backshell adaptor into a different one  
20 of four of said passages of said insert frame and mating with a rear end of a different one of said four insert contacts.

2. The connection system described in claim 1 wherein:

said insert lies in said bay of said mounting shell, said backshell adaptor lies rearward of said insert, said backshell adaptor is fastened to said mounting shell, and said terminator is removably retained in said backshell adaptor and said

5 terminator contact front ends each projects into one of said passages and engages the rear end of one of said insert contacts.

3. The connection system described in claim 1 wherein each of said double-ended insert contacts is a pin contact, and wherein:

5 the four contact front ends of said quad terminator are each in the form of a socket contact, and the terminator includes four subshields that each surrounds only one of said socket contacts, said subshields being spaced apart so each can fit into one of said insert passage.

4. The connection system described in claim 1 wherein:

5 said backshell adaptor has a plurality of bores, and including a plurality of identical quad terminator devices that include said quad terminator, with first and second of said quad terminator devices lying in adjacent ones of said bores, the contact front ends of said first and second quad terminator devices forming respective first and second groups of contact front ends;

10 said first and second groups of contact front ends projecting respectively into first and second groups of four each of said insert passages, said insert having at least two unused passages that do not contain said contact front ends and that lie between said first and second groups of insert passages, when said first and second quad terminator devices lie at minimum spacing while their terminators lie in said bores.

5 5. A connection system for connecting insulated conductors of a cable that has a grounded cable shield that surrounds the insulated conductors, to each of a plurality of terminals that, in turn, connect to front ends of insert contacts that lie in passages of an insulative insert that has an insulative insert frame with front and rear faces and rows and columns of said passages, said passages extending between said frame faces, including:

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a first multi-contact terminator that is terminated to said cable, said terminator having a terminator main shield, a plurality of terminator contacts lying in said terminator main shield, and a terminator insulator lying between said terminator contacts and between said terminator contacts and said main shield, each terminator contact connected to a different one of said cable conductors, said terminator contacts each having a projecting front end that projects forward of said terminator main shield;

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a backshell adaptor having a first through bore, said backshell adaptor having a front end lying faceward adjacent to said insert frame rear face;

said terminator main shield lies in said first bore and is trapped therein, and said projecting front ends of said terminator contacts project forward of said backshell adaptor bores and into rear ends of said insert passages where said contact projecting front ends engage rear ends of said insert contacts.

6. The connection system described in claim 5 wherein:

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said backshell adaptor has a plurality of bores that include said first bore and at least an adjacent second bore, and said system includes a second terminator that lies adjacent to said first terminator and that has a main shield that lies in said second bore;

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said first and second terminators each have four contacts with forwardly projecting ends, the four contacts of each terminator project into a different group of four corresponding ones of said passages, but with at least two of said passages of said insert frame that lie between said two groups of passages being left empty of any terminator contact forwardly projecting end.

7. The connection system described in claim 5 including:

a mounting shell having a bay with a forwardly facing bay shoulder, said insert lies in said bay, said insert has a forwardly facing shoulder that abuts said bay shoulder, and said backshell adaptor lies rearward of said mounting shell bay and

5 is attached to said mounting shell and holds said insert in said bay.

8. The connection system described in claim 5 wherein:

said terminator includes four of said contacts and four subshields that each surrounds of the said contact projecting front ends, each subshield projecting into one of said passages.

9. A method for connecting together a quad cable and at least four terminals comprising:

5 attaching a quad terminator to an end of said quad cable, wherein said quad terminator has a main shield and has four quad contacts with front ends projecting forwardly of said main shield, the four quad contact front ends being free of a single main shield portion surrounding all of them;

10 installing an insert in a bay of a mounting shell that has a rear end, wherein the insert has opposite insert ends and has rows and columns of passages extending between said insert ends and has insert contacts in the passages, each passage having passage ends of sufficient diameter to each receive one of said quad contacts;

15 attaching a backshell adaptor to said mounting shell so said backshell adaptor is located at said rear end of said mounting shell, wherein said backshell adaptor has at least one bore for receiving said quad terminator and said backshell adaptor has a retainer for retaining the quad terminator in a position wherein each quad contact front end projects forward beyond a front face of the backshell adaptor;

20 inserting said quad terminator through a rear end of said backshell adaptor into said bore of the backshell adaptor until the front ends of the four contacts of the terminator each project from the front face of the backshell adaptor and into a different passage end of the insert and mate with an end of an insert contact lying in the passage.